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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/589,974	06/08/2000	David Jau Young Lee	139.132USU1	9891

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EXAMINER	
RYMAN, DANIEL J	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 07/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/589,974	LEE ET AL.	
	Examiner	Art Unit	
	Daniel J. Ryman	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 July 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11 July 2006 have been fully considered but they are not persuasive. On pages 8 and 9 of the Response, Applicant asserts that the cited prior art fails to teach an "IP network separate from the cellular network" since Frid, the prior art relied upon to teach this limitation, teaches using "an IP tunnel." Applicant asserts that "an IP tunnel" "is an admission that [Frid] does not use an IP network separate from the cellular network, but instead merely tunnels an IP connection (presumably) through the cellular network." Examiner, respectfully, disagrees. Frid explicitly discloses that the IP tunnel is effectuated "by encapsulating the received IP packet addressed to the mobile station 20 with another IP packet addressed to the identified VPMSC 80" (col. 5, lines 22-27). Thus, contrary to Applicant's assertion, the IP tunneling occurs in an IP network.

2. In view of the foregoing, Examiner maintains that the claims are obvious in view of the cited prior art.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 2, 5, 6, and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sicher et al. (USPN 6,385,195), of record, in view of Frid et al. (USPN 6,137,791), of record.

5. Regarding claims 1 and 12, Sicher discloses an internet protocol-based cellular telephone communications system, comprising: a router (MSC) (col. 4, line 61-col. 5, line 3 and col. 7, lines 14-18) where the MSC includes an E-IWF (col. 4, line 61-col. 5, line 3) and where the E-IWF supports routing (col. 7, lines 14-18) such that the MSC, as broadly defined, is a router; a base transceiver station (BTS) (radio base station), coupled to the router, for communicating with a mobile telephone within a transmission area associated with the base transceiver station, wherein the router communicates with the BTS using a cellular network interface (col. 4, line 47-col. 5, line 3) where the "cellular network interface" is the interface between the base station and the router; and wherein messages are transmitted using the cellular network interface between the router and the base transceiver station (col. 4, line 47-col. 5, line 3).

Sicher does not expressly disclose a foreign agent (FA), coupled to the router; and a home agent (HA), coupled to the router, wherein the home agent communicates with the router and the foreign agent for registering mobile telephones and transmitting messages using an internet-protocol network separate from the cellular network; wherein messages are transmitted using the internet protocol network between the home agent and the router. However, Sicher does disclose that data is communicated from a mobile unit to a device located on the Internet (col. 3, lines 18-35 and col. 3, lines 42-59). Frid teaches, in a mobile communication network, having a foreign agent (FA), coupled to a router (VMSC) (col. 7, lines 11-15) where "coupled" can include indirect coupling and where the VMSC routes packets between the FA and the mobile unit (col. 7, lines 11-15); and a home agent (HA), coupled to the router (VMSC) (col. 6, lines 56-59), wherein the home agent communicates with the router and the foreign agent for registering mobile telephones and transmitting messages using an internet-protocol network

separate from the cellular network (col. 1, lines 48-53; col. 6, lines 41-43; and col. 7, lines 15-20) where the FA and HA are "packet nodes" such that the FA and HA communicate over the IP network; wherein messages are transmitted using the internet protocol network between the home agent and the router (col. 1, lines 48-53; col. 6, lines 41-43; and col. 7, lines 15-20). Frid discloses that such a system comprises a "Mobility Management" system which permits communication between a mobile node and another node when the mobile nodes moves throughout the network (col. 1, lines 30-34 and col. 1, lines 48-53). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use Frid's mobility management system in Sicher's cellular communication system to permit a telephone to move throughout the network and still maintain a connection with another node in the network. Specifically, it would have been obvious to one of ordinary skill in the art at the time of the invention to include in Sicher's system a foreign agent (FA), coupled to the router; and a home agent (HA), coupled to the router, wherein the home agent communicates with the router and the foreign agent for registering mobile telephones and transmitting messages using an internet-protocol network separate from the cellular network; wherein messages are transmitted using the internet protocol network between the home agent and the router in order to permit a mobile phone to move throughout the network and maintain a connection with another node on the Internet.

6. Regarding claim 2, Sicher in view of Frid discloses a second BTS, wherein a handoff between the BTS and the second BTS is performed through the internet-protocol network (Frid: col. 7, line 46-col. 8, line 4).

7. Regarding claim 5, Sicher in view of Frid discloses that the HA directs a message to the mobile telephone using an internet-protocol address (Frid: col. 7, line 46-col. 8, line 4).

8. Regarding claim 6, incorporating the rejection of claims 1 and 12, Sicher in view of Frid discloses each limitation of claim 6, as outlined in the rejection of claims 1 and 12, except that the "router" (MSC) is a "handoff server." However, Sicher in view of Frid does disclose that the MSC is involved in the handoff (Frid: col. 7, lines 51-60). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention that the MSC is a "handoff server" since the MSC is central to a handoff.

9. Regarding claim 9, Sicher in view of Frid discloses that a handoff of a mobile telephone between the BTS and a second BTS within the cellular telephone communications system is handled through the handoff server (Frid: col. 7, line 46-col. 8, line 4).

10. Regarding claim 10, Sicher in view of Frid discloses that the mobile telephone communicates directly through the handoff server during the handoff between the BTS and the second BTS (Frid: col. 7, line 46-col. 8, line 4).

11. Regarding claim 11, Sicher in view of Frid discloses that a handoff between the BTS and a second BTS is anchored through the first BTS until updates can be made at the HA (Frid: col. 7, line 46-col. 8, line 4).

12. Claims 3, 4, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sicher et al. (USPN 6,385,195), of record, in view of Frid et al. (USPN 6,137,791), of record, as applied to claims 1 and 6 above, and further in view of Olkkonen (WO 98/43456), of record.

13. Regarding claims 3 and 7, Sicher in view of Frid does not expressly disclose that a soft hand off (SHO) is performed between the BTS and the second BTS. Examiner takes official

notice that soft hand offs are very old and well known in the art since soft hand offs reduce the probability that a connection will be dropped during hand off. It would have been obvious to one of ordinary skill in the art at the time of the invention to have the hand off be a soft hand off in order to decrease the probability that a connection will be dropped during hand off.

Sicher in view of Frid does not expressly disclose using asynchronous transfer mode (ATM) communications between the router and the BTS and the router and the second BTS; however, Sicher in view of Frid does disclose that the system can use a variety of communication methods (Sicher: col. 5, lines 36-55). Olkkonen teaches, in a mobile communication system, using ATM to communicate within mobile network transmission systems in order to increase capacity and flexibility (pg. 2, lines 24-page 3, line 6; page 4, line 19-page 5, line 17; page 8, lines 33-35; and page 11, line 11-page 12, line 33). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use asynchronous transfer mode (ATM) communications between the router and the BTS and the router and the second BTS in order to increase capacity and flexibility.

14. Regarding claims 4 and 8, Sicher in view of Frid in further view of Olkkonen suggests that the SHO is performed using ATM between the BTS and the second BTS and the mobile telephone (Olkkonen: page 11, line 11-page 12, line 33).

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Daniel J Ryman
Examiner
Art Unit 2616

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